



# FortiGate 800C

## QuickStart Guide



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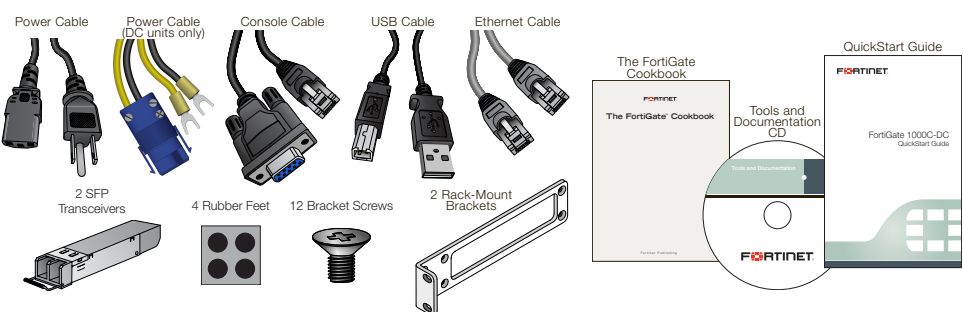
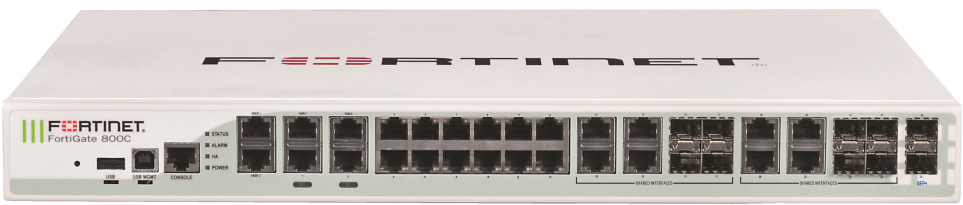
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# Package Contents

Fortinet's consolidated security solutions provide an integrated set of core security and network services in a single, easy-to-manage, high-performance appliance that is capable of supporting a wide range of deployment scenarios.

Your box contains the following:

- |                            |                        |
|----------------------------|------------------------|
| FortiGate 800C             | Power Cable (AC or DC) |
| QuickStart Guide           | Console Cable          |
| Tools and Documentation CD | Ethernet Cable         |
| The FortiGate Cookbook     | USB Cable              |
| 2 SFP Transceivers         | 2 Rack-Mount Brackets  |
| 4 Rubber Feet              | 12 Bracket Screws      |



**Note:** Accessories may not be exactly as shown.

# Installation

The FortiGate unit can be mounted in any standard 19 inch (48.3 cm) rack unit with the provided rack-mount brackets and screws.

Please read the Cautions and Warnings section prior to installing your device.

**Caution:** Please consult a licensed electrician before connecting this product to a DC power source, or hire a licensed electrician to perform all connections.

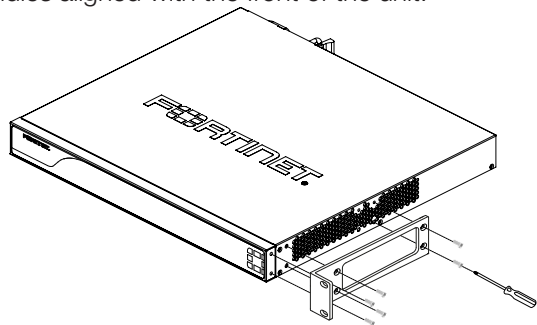
**Caution:** Electrostatic discharge (ESD) can damage your Fortinet equipment.

**Caution:** Do not place heavy objects on the unit.

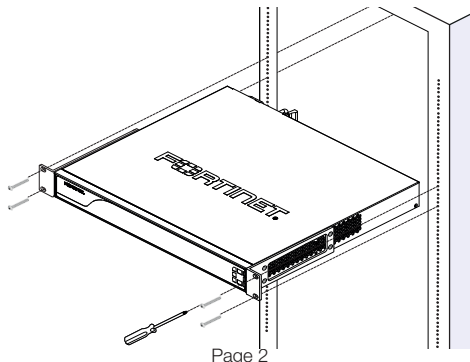
**Caution:** To avoid personal injury or damage to the unit, it is recommended that two or more people install the unit into the rack.

## To install the FortiGate unit into a rack:

1. Ensure that the FortiGate unit is placed on a stable surface prior to rack-mount installation.
2. Attach the provided rack-mount brackets to the sides of the unit using the provided screws.
  - a. If you are installing the unit into a four-post rack, attach the rack-mount brackets with the handles aligned with the front of the unit.



- b. If you are installing the unit into a two-post rack, attach the rack-mount brackets with the handles aligned with the middle of the unit.



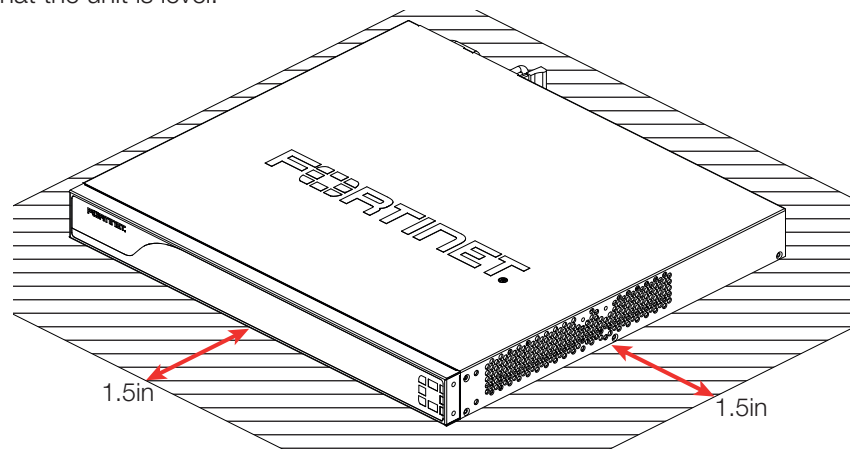
3. Position the FortiGate unit in the rack. Ensure there is enough room around the unit to allow for sufficient air flow.
4. Line up the rack-mount bracket holes to the holes on the rack and ensure that the FortiGate unit is level.
5. Finger tighten four rack-mount screws to attach the unit to the rack.
6. Verify that the spacing around the FortiGate unit conforms to requirements and that the unit is level, then tighten the rack-mount screws with an appropriate screwdriver.
7. Using the provided power cable, plug the cable into the rear of the unit, and then into a grounded electrical outlet or a separate power source such as an uninterruptible power supply (UPS) or a power distribution unit (PDU).

**Note:** If the unit has a redundant power supply, each power cable should be connected to a different power source. In this way, if one power source fails, the other may still be operational and the unit will not lose power.

**Note:** The DC power cables provided with the device are intended to be used only for in-rack wiring.

## To install the unit on a flat surface (AC units only):

1. Ensure that the surface onto which the FortiGate unit to be installed is clean, level, and stable and that there is at least 1.5 inches (3.8cm) of clearance on all sides to allow for adequate airflow.
2. Attach the provided rubber feet to the bottom of the FortiGate unit.
3. Place the unit in the designated location.
4. Verify that the spacing around the FortiGate unit conforms to requirements and that the unit is level.

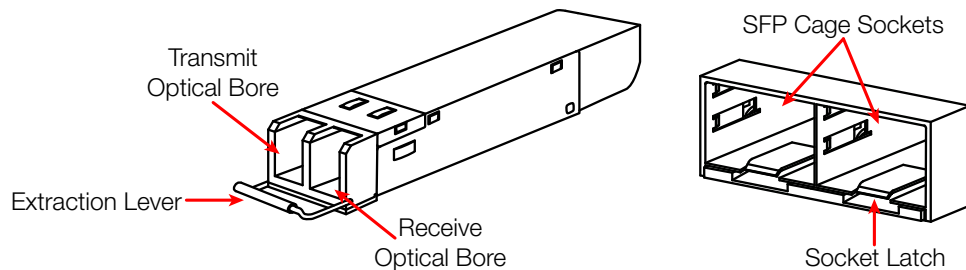


5. Using a provided AC power cable, plug the cable into the rear of the unit, and then into a grounded electrical outlet or a separate power source such as an uninterruptible power supply (UPS) or a power distribution unit (PDU).

**Note:** If the unit has a redundant power supply, each power cable should be connected to a different power source. In this way, if one power source fails, the other may still be operational and the unit will not lose power.

**Caution:** Do not place heavy objects on the unit.

# SFP Transceivers



**Caution:** SFP transceivers are static sensitive devices. Use an ESD wrist strap or similar grounding device when handling transceivers.

**Caution:** Do not install or remove SFP transceivers while fiber-optic cables are still attached. This can cause damage to the cables, cable connectors, and the optical interfaces. It may also prevent the transceiver from latching correctly into the socket connector.

**Note:** Installing and removing SFP transceivers can shorten their useful life. Do not install or remove transceivers more than is necessary.

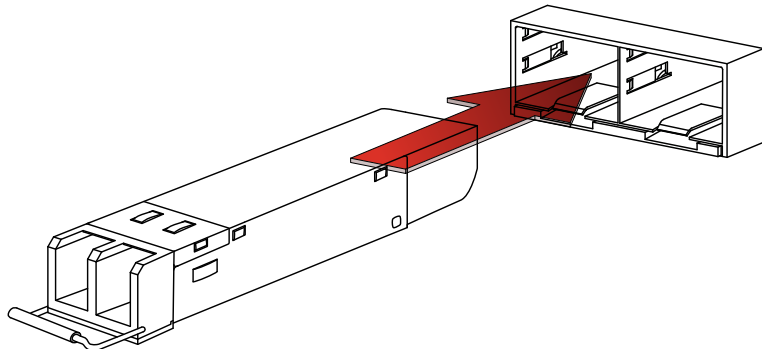
## To install the SFP transceivers:

1. Ensure that you are properly grounded.
2. Remove the caps from SFP cage sockets on the front panel of the unit.
3. Position the SFP transceiver in front of the cage socket opening and ensure that the transceiver is correctly oriented.

When the transceiver is correctly oriented, the extraction lever will be level with the socket latch.

**Note:** SFP cage socket orientation may vary. Ensure that the SFP transceiver module is correctly oriented each time that you are inserting a transceiver.

4. Hold the sides of the SFP transceiver and slide it into the cage socket until it clicks into place.



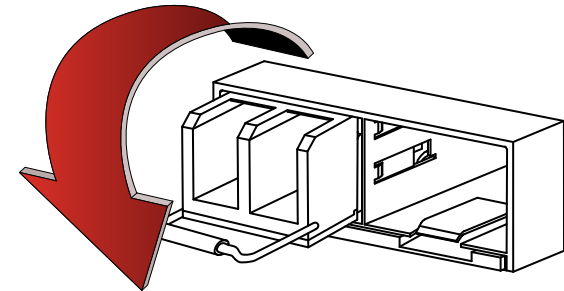
**Caution:** Do not force the SFP transceivers into the cage slots. If the transceiver does not easily slide in and click into place, it may not be aligned correctly or may be upside down. If this happens, remove the SFP transceiver, realign it or rotate it and slide it in again.

5. Press the transceiver firmly into the cage socket with your thumb.
6. Verify that the transceiver is latched correctly by grasping the sides of the transceiver and trying to pull it out without lowering the extraction lever.  
If the transceiver cannot be removed, it is installed and latched correctly.  
If the transceiver can be removed, reinsert it and press harder with your thumb.  
If necessary, repeat this process until the transceiver is securely latched into the cage socket.

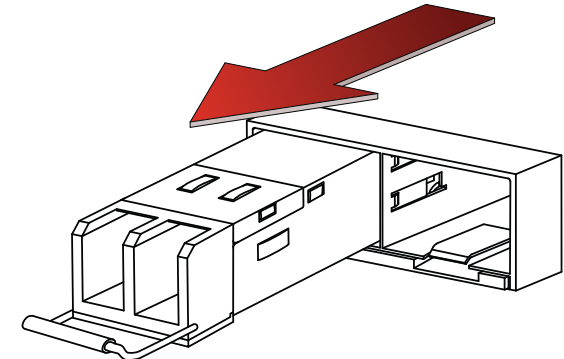
## To remove the SFP transceivers:

1. Ensure that you are properly grounded.
2. If applicable, disconnect the fiber-optic cable from the transceiver connector and install a clean dust plug in the transceiver's optical bores.
3. Pull the extraction lever out and down to eject the transceiver.

If you are unable to use your finger to open the lever, use a small flat-head screwdriver or other similar tool to open the lever.



4. Hold the sides of the transceiver and carefully pull it away from the cage socket.



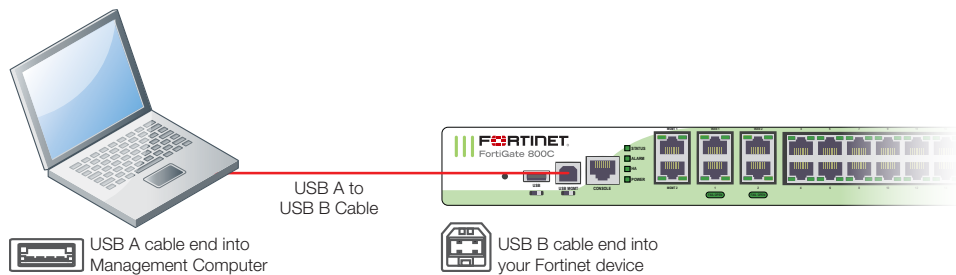
5. Replace the cap on the SFP cage socket and place the removed SFP transceiver into an antistatic bag.

**Note:** Follow proper fiber-optic handling procedures when installing and removing SFP transceivers to ensure the devices remain clean and are not damaged.

# FortiExplorer

FortiExplorer provides a user-friendly tool that you can use to configure a FortiGate unit over a standard USB connection, rather than using a console cable or Ethernet connection.

**Caution:** Do not connect the USB cable until after FortiExplorer has been installed.



**Note:** When using FortiExplorer for the first time, ensure the FortiGate unit is using its factory default settings.

## Installing FortiExplorer

FortiExplorer is available for Microsoft Windows XP, Vista, 7, and 8. It is also available for Mac OS X v10.6 Snow Leopard and higher.

### Microsoft Windows Install

1. Double-click the .msi, or .exe file and follow the on-screen instructions. If loading from the CD, select the appropriate version for your operating system.
2. Connect the USB cable to the FortiGate unit and then to the management computer.
3. The FortiExplorer Easy Configuration Utility opens when the USB cable is connected. Select *Install the hardware automatically* and select *Next*.
4. After a moment, FortiExplorer will launch.

### Mac OS X Install

1. Double-click the .dmg file and drag the FortiExplorer program file into the Applications folder.
2. Connect the USB cable to the FortiGate unit and then to the management computer.
3. Double-click the FortiExplorer icon to launch the application.

## Configuration Options

With FortiExplorer, you are provided a number of options on how to configure the FortiGate unit, depending on your level of comfort with various interfaces.

## Updating FortiExplorer and Firmware

FortiExplorer may be automatically updated from time to time. Select the checkbox at the bottom of the page to remember the device and check for updates with FDS automatically.

FortiExplorer will also monitor firmware updates for your devices and provide an alert when one is available. FortiExplorer lists the three most recent firmware images that are available for your device on the main page.

# Connecting to the FortiGate Unit

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The FortiGate unit requires some basic configuration to add it to your network. These basic steps include assigning IP addresses, DNS settings, and the default gateway. Until these steps are completed traffic will not flow through the device.

In addition to FortiExplorer, the FortiGate unit can be configured using the Web-based Manager or the CLI.

This section will step you through both methods of connecting to the unit. Use whichever method you are most comfortable with.

## To Connect to the Web-based Manager:

1. Connect the FortiGate unit MGMT 1 port to a management computer using the provided Ethernet cable.
2. Configure the management computer to be on the same subnet as the internal interface of the FortiGate unit:
  - a. Browse to the *Network and Sharing Center > Change Adapter Settings > Local Area Connection Properties > Internet Protocol Version 4 (TCP/IPv4) Properties*.
  - b. Change the IP address of the management computer to 192.168.1.2 and the netmask to 255.255.255.0.
3. To access the FortiGate unit Web-based Manager, start a browser of your choice and browse to <https://192.168.1.99> (remember to include the “s” in https://).
4. Type `admin` in the *Name* field, leave the *Password* field blank, and select *Login*.

You can now proceed with configuring your FortiGate unit.

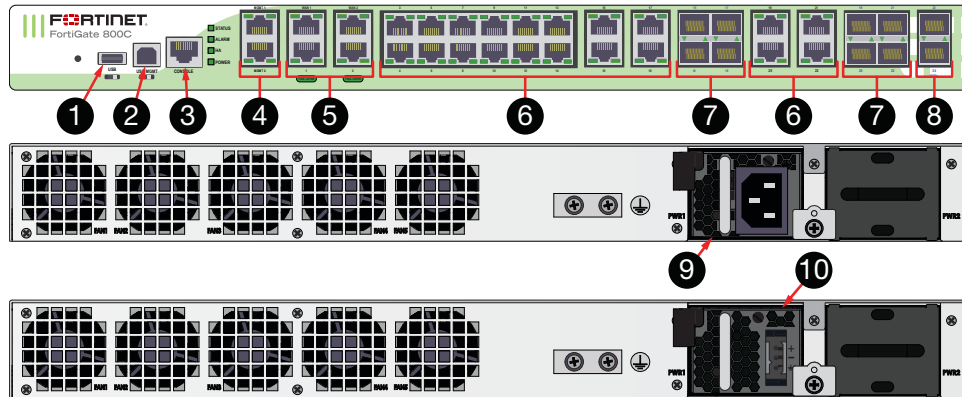
## To Connect to the CLI:

You can configure all FortiGate configuration options from the CLI using *config* commands. The CLI also includes *get*, *show*, *diagnose*, and *execute* commands for performing various configuration and monitoring tasks.

1. Connect the FortiGate unit console port to the management computer using the provided console cable.
2. Start a terminal emulation program on the management computer. Use the following settings:
  - Baud Rate: 9600
  - Data bits: 8
  - Parity: None
  - Stop bits: 1
  - Flow Control: None
3. Press *Enter* on your keyboard to connect to the CLI.
4. Type `admin` in the *Name* field, leave the *Password* field blank, and press *Enter*.

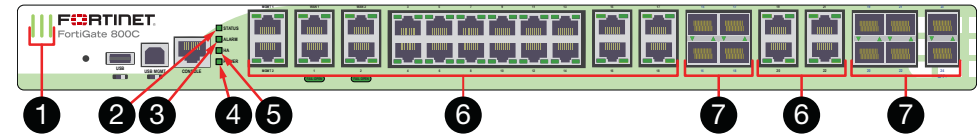
You can now proceed with configuring your FortiGate unit.

# Technical Specifications



#	Interface	Type	Description
1	USB	USB-A	USB server port for USB key, modem, or management functions.
2	USB MGMT	USB-B	USB client port for management.
3	Console	RJ-45	Optional connection to the management computer. Provides access to the CLI.
4	MGMT 1 & 2	RJ-45	Client ports for management. The default IP address of MGMT 1 is 192.168.1.99.
5	WAN 1 & 2	RJ-45	Two Gigabit Ethernet Internet connection bypass protected pairs.
6	Ethernet Ports 3 - 22	RJ-45	Switched Gigabit Ethernet ports for connection to your network and the Internet. Ports 15 - 22 shared with SFP ports 15- 22.
7	SFP Ports 15 - 22	SFP	1Gbps/auto small form-factor pluggable transceiver ports. Shared with Ethernet ports 15 - 22.
8	SFP+ Ports 23 - 24	SFP+	10Gbps/auto small form-factor pluggable transceiver ports.
9	AC Power Supplies		AC units only: 100-240V AC, 7-3.5A, 50-60Hz
10	DC Power Supplies		DC units only: -48V DC, 17A

# LED Specifications



#	LED	State	Description
1	Logo	Green	The unit is on.
		Off	The unit is off.
2	STATUS	Green	The unit is operating normally.
		Flashing Green	The unit is booting up.
		Off	The unit is off.
3	ALARM		Not in use
4	POWER	Green	The unit is on.
		Off	The unit is off.
5	HA	Green	The unit is operating in HA mode.
		Red	The unit is operating in failover HA mode.
		Off	The unit is not operating in HA mode.
6	Ethernet Ports Activity	Green	Port is active.
		Flashing Green	Port is transmitting and receiving data.
		Off	Port is not in use.
6	Ethernet Port Speed	Green	Port is connected at 1Gbps.
		Amber	Port is connected at 100Mbps.
		Off	Port is connected at 10Mbps or not in use.
7	SFP Ports	Green	Port is active.
		Flashing Green	Port is transmitting and receiving data.
		Off	Port is not in use.



# Cautions and Warnings

### Environmental and mounting specifications

Ambient operating temperature: 0C to 40C

Rack Mount Instructions - The following or similar rack-mount instructions are included with the installation instructions:

Instructions de montage en rack - Les instructions de montage en rack suivantes ou similaires sont incluses avec les instructions d'installation:

Elevated Operating Ambient - If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient. Therefore, consideration should be given to installing the equipment in an environment compatible with the maximum ambient temperature (Tma) specified by the manufacturer. Température ambiante élevée - S'il est installé dans un rack fermé ou à unités multiples, la température ambiante de fonctionnement de l'environnement du rack peut être supérieure à la température ambiante de la pièce. Par conséquent, il est important d'installer le matériel dans un environnement respectant la température ambiante maximale (Tma) stipulée par le fabricant.

Reduced Air Flow - Installation of the equipment in a rack should be such that the amount of air flow required for safe operation of the equipment is not compromised. Ventilation réduite - Installation de l'équipement dans un rack doit être telle que la quantité de flux d'air nécessaire au bon fonctionnement de l'équipement n'est pas compromise.

Mechanical Loading - Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven mechanical loading. Chargement Mécanique - Montage de l'équipement dans le rack doit être telle qu'une situation dangereuse n'est pas lié à un chargement mécanique inégal.

Circuit Overloading - Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of the circuits might have on overcurrent protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern. Surtenion - Il convient de prendre l'ensemble des précautions nécessaires lors du branchement de l'équipement au circuit d'alimentation et être particulièrement attentif aux effets de la suralimentation sur le dispositif assurant une protection contre les courts-circuits et le câblage. Ainsi, il est recommandé de tenir compte du numéro d'identification de l'équipement.

Reliable Earthing - Reliable earthing of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (e.g. use of power strips). Fiabilité de la mise à la terre- Fiabilité de la mise à la terre de l'équipement monté en rack doit être maintenue. Une attention particulière devrait être accordée aux connexions d'alimentation autres que les connexions directes au circuit de dérivation (par exemple de l'utilisation de bandes de puissance).

Refer to specific Product Model Data Sheet for Environmental Specifications (Operating Temperature, Storage Temperature, Humidity, and Altitude)

Référez à la Fiche Technique de ce produit pour les caractéristiques environnementales (Température de fonctionnement, température de stockage, humidité et l'altitude).

### Safety

Warning: A readily accessible disconnect device shall be incorporated in the building installation wiring. Avertissement: Un dispositif de déconnexion facilement accessible doit être incorporé dans l'installation électrique du bâtiment.

Battery - Risk of explosion if the battery is replaced by an incorrect type. Do not dispose of batteries in a fire. They may explode. Dispose of used batteries according to your local regulations. IMPORTANT: Switzerland: Annex 4.10 of SR814.013 applies to batteries.

Batterie - Risque d'explosion si la batterie est remplacée par un type incorrect. Ne jetez pas les batteries au feu. Ils peuvent exploser. Jetez les piles usagées conformément aux réglementations locales. IMPORTANT: Suisse: l'annexe 4.10 de SR814.013 s'appliquent aux batteries.

警告  
本電池如果更換不正確會有爆炸的危險  
請依製造商說明書處理用過之電池

Caution: Disconnect power supply cords before servicing

Attention: Débranchez les cordons de la source d'alimentation avant tout entretien.

Grounding - To prevent damage to your equipment, connections that enter from outside the building should pass through a lightning / surge protector, and be properly grounded. Use an electrostatic discharge workstation (ESD) and/or wear an anti-static wrist strap while you work. In addition to the grounding terminal of the plug, on the back panel, there is another, separate terminal for earthing.

Mise à la terre - Pour éviter d'endommager votre matériel, assurez-vous que les branchements qui entrent à partir de l'extérieur du bâtiment passent par un parafoudre / parasurtenseur et sont correctement mis à la terre. Utilisez un poste de travail de décharge électrostatique (ESD) et / ou portez un bracelet anti-statique lorsque vous travaillez. Ce produit possède une borne de mise à la terre qui est prévu à l'arrière du produit, à ceci s'ajoute la mise à la terre de la prise.

This product has a separate protective earthing terminal provided on the back of the product in addition to the grounding terminal of the attachment plug. This separate protective earthing terminal must be permanently connected to earth with a green with yellow stripe conductor minimum size # 14 AWG and the connection is to be installed by a qualified service personnel.

Ce produit a une borne de mise à la terre séparé sur le dos de l'appareil, en plus de la borne de mise à la terre de la fiche de raccordement. Cette borne de mise à la terre séparée doit être connecté en permanence à la terre avec un conducteur vert avec la taille bande jaune de minimum # 14 AWG et la connexion doit être installé par un personnel qualifié.

### Federal Communication Commission (FCC) – USA

This device complies with Part 15 of FCC Rules. Operation is subject to the following two conditions:  
(1) this device may not cause harmful interference, and  
(2) this device must accept any interference received; including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy, and if it is not installed and used in accordance with the instruction manual, it may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

### Industry Canada Equipment Standard for Digital Equipment (ICES) – Canada

CAN ICES-3 (A) / NMB-3 (A)

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Cet appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la classe A prescrites dans le Règlement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada.

### European Conformity (CE) - EU

This is a Class A product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.



### Product Safety Electrical Appliance & Material (PSE) – Japan

日本では電気用品安全法(PSE)の規定により、同梱している電源コードは本製品の専用電源コードとして利用し、他の製品に使用しないでください。

### Voluntary Control Council for Interference (VCCI) – Japan

この装置は、クラスA情報技術装置です。この装置を 家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。V C C I - A

日本では電気用品安全法(PSE)の規定により、同梱している電源コードは本製品の専用電源コードとして利用し、他の製品に使用しないでください。

### Bureau of Standards Metrology and Inspection (BSMI) – Taiwan

這是甲類的資訊產品，在居住的環境中使用時，可能會造成射頻干擾，在這種情況下，使用者會被要求採取某些適當的對策。

### China

此为A级产品，在生活环境中，该产品可能会造成无线电干扰。这种情况下，可能需要用户对其实采取切实可行的措施。

### Korea Certification (KC) – Korea

A급 기기 (업무용 방송통신기자재)

이 기기는 업무용(A급) 전자파적합기기로서 판매자 또는 사용자는 이 점을 주의하시기를 바라며, 가정외의 지역에서 사용하는 것을 목적으로 합니다.

# Documentation and Links

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The following Fortinet web pages provide information and resources for your Fortinet product:

**1. Customer Service & Support:** <https://support.fortinet.com>

On this page you can create a support account with Fortinet, register and manage your products, download updates, firmware images and release notes, and create technical support tickets.

**2. Technical Documentation:** <http://docs.fortinet.com>

This page provides the most up-to-date versions of Fortinet publications for the entire family of Fortinet products.

**3. Knowledge Base:** <http://kb.fortinet.com>

This page provides Fortinet technical documentation, such as troubleshooting, how-to articles, example configurations, FAQs, technical notes, and more.

**4. Technical Discussion Forums:** <https://support.fortinet.com/forum>

This page allows you to communicate with other customers and Fortinet partners about Fortinet products, services, and configuration issues in a forum environment.

**5. Training Services:** <http://training.fortinet.com>

This page provides course descriptions, availability, schedules, and locations of training programs in your area.

**6. FortiGuard Threat Research and Response:** <http://www.fortiguard.com>

This page provides up-to-date information on vulnerabilities and threats, and includes a virus scanner, Internet Protocol (IP) signature look-up, web filtering tools, and related information.

## Tools and Documentation CD

The tools and documents on this CD are current as of shipping time.

## Comments on Technical Documentation

Please send comments or information about any errors or omissions in this or any Fortinet technical documents to [techdoc@fortinet.com](mailto:techdoc@fortinet.com).

# Register Your Product

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If you did not register your Fortinet product using the FortiExplorer wizard, please register your product now.

## Register

Register your Fortinet product in order to receive:

- Technical Support
- New product features
- Protection from new threats

## Enregistrer

Vous devez enregistrer le produit pour recevoir:

- Support technique
- Nouvelles fonctionnalités du produit
- Protection contre de nouvelles menaces

## Registra

La registrazione ti permette di usufruire di:

- Supporto Tecnico
- Nuove funzionalita
- Protezione dalle ultime minacce

## Registrar

Debe registrar el producto para recibir:

- Apoyo técnico
- Nuevas funcionalidades del producto
- Protección contra ataques

## 登録のお願い

本日、フォーティネット製品の登録をしてください。

登録すると次のメリットがあります。

テクニカルサポート・新機能の追加・新しい脅威への防御

## 请马上注册

您的飞塔产品

您在注册以后才能得到技术支持、新产品特点信息、最新威胁防护

**Web:** <https://support.fortinet.com/>

**Toll free:** 1-866-648-4638

**Phone:** 1-408-486-7899

**Fax:** 1-408-235-7737

**Email:** [register@fortinet.com](mailto:register@fortinet.com)

# Product License Agreement

## Fortinet Product License Agreement / EULA and Warranty Terms

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